

REMARKS

Applicants wish to thank Examiner Lee for the courteous telephone interview of July 13, 2009 at which the claims and the art of record were discussed.

Claims 7-10, 15, 16 and 24 have been cancelled. All remaining dependent claims now depend directly or indirectly from claim 23. New independent claim 25 has been added. This claim recites the compounds of one embodiment of the ink composition of the invention as set forth in the examples beginning on page 9 of the specification.

The objection to claim 16 has been rendered moot by the cancellation of this claim. The rejection under §112 based on the use a trademark is also rendered moot by the cancellation of claims 14 and 16.

Claims 1-7 and 17 have been rejected under 35 USC 103(a) as being unpatentable over Johnson et al (WO 99/29787). Claims 8-12 and 14 have been rejected over Johnson et al in view of Wacker Silicones Corp, with evidence provided by Turgis et al (US 2004/0157959). Claim 23 has been rejected as being unpatentable over Johnson et al in view of Wacker Silicones Corp. Claims 15, 16 and 24 have also been rejected, but these rejections have been rendered moot by the cancellation of these claims.

The Examiner's central position appears to be that the composition of Johnson et al will inherently result in applicants' claimed composition (Paragraph 8 of the Office Action). Applicants respectfully disagree. Johnson et al is discussed in the present application at pages 2 and 3 thereof. This reference relates to a radiation curable ink jet ink including a surfactant such as a silicone polyether acrylate (e.g., an acrylate modified polydimethylsiloxane, page 15, 1st paragraph). The only example of a silicone polyether acrylate is Tego® Rad 2200. There is no teaching or suggestion of the use of a block copolymeric tetraacrylate modified polydimethylsiloxane having 15 dimethylsiloxane units, as claimed in applicants' claim 23.

Wacker Silicones and Turgis et al are cited for allegedly establishing that Addid® 300 was known as a surfactant prior to applicants' invention. However, Wacker Silicones only suggests the use of Addid® 300 as an additive generally, not specifically as a surfactant. The skilled artisan is provided no teaching or suggestion that Addid® 300, selected from the long list of additives in Wacker Silicones, would perform in the manner taught by applicants, viz., as a surfactant, let alone a surfactant suitable for use in an ink composition.

Turgis et al is not prior art, as noted by the Examiner. Nevertheless, it is cited for allegedly showing that Addid® 300 is used to adjust the flow, surface tension and gloss of a cured printing ink. Applicants respectfully disagree. Turgis et al states that adjuvants are used to control flow, surface tension and gloss, and that Addid® 300 is an adjuvant. However, the reference is silent on which of flow, surface tension or gloss Addid® 300 is used for. Hence, Turgis et al does not establish that Addid® 300 is a surfactant. Moreover, it is pointed out that Turgis et al relates to *aqueous* ink compositions, while claim 23 recites a *non-aqueous* ink. It is well known in the art that surfactants in aqueous compositions cannot necessarily be used in non-aqueous compositions.

In summary, neither Wacker Silicones nor Turgis et al establishes that, at the time applicants' invention was made, Addid® 300 was known as a surfactant suitable for use in inks or non-aqueous compositions. Furthermore, neither of these documents provides any suggestion to substitute Addid® 300 for Tego® Rad 2200 in the composition of Johnson et al. Hence the Examiner has failed to establish a *prima facie* case of obviousness.

Yet, even if the Examiner had in fact established *prima facie* obviousness, applicants have presented evidence of unexpected results in the examples of the specification. The comparative experiments in Table 2 compare ink formulations containing Addid® 300 (within the scope of claim 23) and Tego® Rad 2200 (outside the scope of claim 23) as well as other surfactants outside applicants' claim scope. As can be seen by the results, the use of Addid® 300 provides unexpectedly superior results in the combination of low nozzle loss and good visible appearance. By contrast, ink containing the surfactant of Johnson et al, Tego®Rad 2200 (comparative ink B) had over 95% nozzle loss. This is explained on pages 19-21 of the specification.

In view of the above, a Notice of Allowance is requested.

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